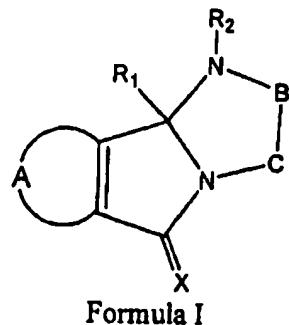


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Claims:-

1. Use of a compound of formula I



its salts, and pharmaceutically acceptable derivatives thereof, in the treatment of infections involving viruses of the *Pneumovirinae* sub-family, wherein

10

A together with the atoms to which it is attached, forms an optionally substituted aromatic ring;

15 linker B-C together with the atoms to which they are attached, forms an optionally substituted heterocyclic ring having from 5 to 8 ring atoms;

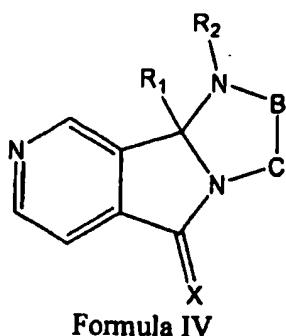
20 R₁ is selected from C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, -(CH₂)_nC₃₋₇ cycloalkyl, -(CH₂)_nC₄₋₇ cycloalkenyl, -(CH₂)_n aryl, -(CH₂)_n arylC₁₋₁₂ alkyl, -(CH₂)_n arylC₂₋₁₂ alkenyl, -(CH₂)_n arylC₂₋₁₂ alkynyl, and -(CH₂)_n heterocyclyl; n is 0-6 and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted;

25 R₂ is selected from -CH₂R₃, -C(Y)R₃, -C(Y)OR₃, -C(Y)N(R₄)R₃, -C(Y)CH₂N(R₄)R₃, -C(Y)CH₂SR₃ and -S(O)_wR₅, where R₃ is selected from hydrogen, C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, -(CH₂)_mC₃₋₇ cycloalkyl, -(CH₂)_mC₄₋₇ cycloalkenyl, -(CH₂)_m aryl, -(CH₂)_m arylC₁₋₁₂ alkyl, -(CH₂)_m arylC₂₋₁₂ alkenyl, -(CH₂)_m arylC₂₋₁₂ alkynyl and -(CH₂)_m heterocyclyl; and when R₂ is -CH₂R₃, or -C(Y)R₃, R₃ may also be selected from -S-R₅ and -O-R₅; m is 0-6; R₄ is hydrogen or C₁₋₆ alkyl; R₅ is C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₇ cycloalkyl, C₄₋₇ cycloalkenyl, benzyl, aryl or heterocyclyl; w is 0, 1 or 2, and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted;

30 X and Y are independently selected from O, S and NR₆, where R₆ is independently selected from hydrogen, lower alkyl, hydroxy and lower alkoxy.

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2. Use as defined in claim 1 wherein R₂ is not an unsubstituted -C₁₋₆alkyl or unsubstituted -C(O)-C₁₋₆alkyl.
- 5 3. Use as defined in claim 1 wherein ring A is an optionally substituted aryl ring.
4. Use as defined in claim 1 wherein ring A is an optionally substituted phenyl ring.
- 10 5. Use as defined in claim 1 wherein ring A is an optionally substituted heteroaryl ring.
- 15 6. Use as defined in claim 1 wherein ring A together with the atoms to which it is attached, represents an optionally substituted pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl, pyrrolyl, furyl, thienyl, imidazolyl, oxazolyl or isoxazolyl ring.
7. Use as defined in claim 1 wherein ring A is an optionally substituted pyridyl, pyridazinyl, pyrimidinyl or pyrazinyl ring.
- 20 8. Use as defined in claim 1 wherein ring A is optionally substituted pyridyl ring.
9. Use as defined in claim 1 wherein ring A is optionally substituted with one or more substituents independently selected from halo, -NH₂, NO₂, C₁₋₆ alkyl, aryl and heterocyclyl, the aryl and heterocyclyl groups optionally substituted with halo, C₁₋₆alkyl or halo substituted C₁₋₆ alkyl and, when ring A contains one or more ring nitrogens, the optional substituents include N-oxides of one or more of the ring nitrogens and pyridinium salts thereof.
- 25 10. Use as defined in claim 1 wherein ring A is optionally substituted with a substituent selected from halo, alkyl, C₆H₅- CH₃-C₆H₄-, CF₃-C₆H₄-, pyridyl, NO₂ and when ring A contains one or more ring nitrogens, the optional substituent also include an N-oxide form of a ring nitrogen, and pyridinium salts thereof.
- 30 11. Use as defined in claim 1 wherein ring A is not substituted.
- 35 12. Use as defined in claim 1 of a compound of the formula IV



Formula IV

- its salts, N-oxides and pharmaceutically acceptable derivatives thereof, wherein B-C, X,
 5 R₁ and R₂ are as defined in claim 1.
13. Use as defined in any one of claims 1 to 12, wherein R₂ is selected from -CH₂R₃,
 -C(Y)R₃, -C(Y)OR₃, -C(Y)N(R₄)R₃, -C(Y)CH₂N(R₄)R₃, -C(Y)CH₂SR₃ and -S(O)_wR₅,
 where R₃ is selected from hydrogen, -C₁₋₁₂alkyl, -C₂₋₁₂alkenyl, -C₂₋₁₂alkynyl, -(CH₂)_mC₃₋₇cycloalkyl,
 -(CH₂)_mC₄₋₇ cycloalkenyl, -(CH₂)_maryl, -(CH₂)_marylC₁₋₁₂ alkyl,
 -(CH₂)_marylC₂₋₁₂alkenyl, -(CH₂)_marylC₂₋₁₂ alkynyl, -(CH₂)_mheterocyclyl, and when R₂ is
 10 -CH₂R₃, or -C(Y)R₃, R₃ may also be selected from -S-R₅ and -O-R₅; m is 0-6, R₄ is
 hydrogen or is C₁₋₆ alkyl, R₅ is selected from C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₃₋₇cycloalkyl, C₄₋₇ cycloalkenyl, benzyl, aryl and heterocyclyl; w is 0, 1 or 2, and the alkyl,
 15 alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally
 substituted with one or more substituents selected from C₁₋₆ alkyl, C₁₋₆ alkoxy, C₂₋₆
 alkenyl, C₂₋₆ alkynyl, halo, halo-C₁₋₆ alkyl (including CF₃), hydroxy, mercapto, nitro,
 cyano, NH₂, mono or di(C₁₋₆alkyl) amino, phenyl, benzyl and heterocyclyl.
- 20 14. Use as defined in claim 1 wherein R₂ is -CH₂-R₃, and R₃ is -(CH₂)_maryl or -(CH₂)_m
 heterocyclyl and m is 0 to 3 and the aryl or heterocyclyl ring is optionally substituted.
15. Use as defined in claim 1 wherein R₂ is -COR₃ and R₃ is aryl or heterocyclyl and is
 25 optionally substituted.
16. Use as defined in claim 14 or 15 wherein R₃ is optionally substituted phenyl,
 naphthyl, furyl, thienyl, pyrrolyl, H-pyrrolyl, pyrrolinyl, pyrrolidinyl, oxazolyl,
 oxadiazolyl, (including 1,2,3 and 1,2,4 oxadiazolyls) thiazolyl, isoxazolyl, furazanyl,
 30 isothiazolyl, pyrazolyl, pyrazolinyl, pyrazolidinyl, imidazolyl, imidazolinyl, triazolyl
 (including 1,2,3 and 1,3,4 triazolyls), tetrazolyl, thiadiazolyl (including 1,2,3 and 1,3,4
 thiadiazolyls), pyridyl, pyrimidinyl, pyridazinyl, pyranyl, pyrazinyl, piperidinyl, 1,4-dioxanyl,
 morpholinyl, 1,4-dithianyl, thiomorpholinyl, piperazinyl, 1,3,5-trithianyl,
 triazinyl, 1H thieno[2,3-c]pyrazolyl, thieno[2,3-b]furyl, indolyl, isoindolyl, benzofuranyl,
 benzothienyl, benzoxazolyl, benzothiazolyl, benzisoxazolyl, benzisothiazolyl,

benzimidazolyl, indazolyl, isoquinolinyl, quinolinyl, quinoxalinyl, uridinyl, purinyl, cinnolinyl, phthalazinyl, quinazolinyl, quinoxalinyl, benzotriazinyl, naphthyridinyl or pteridinyl.

- 5 17. Use as defined in claim 16, wherein R₃ is optionally substituted with one or more substituents selected from C₁₋₆ alkyl, C₁₋₆ alkoxy, C₂₋₆ alkenyl, C₂₋₆ alkynyl, halo, halo-C₁₋₆ alkyl (including CF₃), hydroxy, mercapto, nitro, cyano, NH₂, mono or di(C₁₋₆alkyl) amino, phenyl, benzyl and heterocyclyl.
- 10 18. Use as defined in claim 1 wherein R₂ is -CON(H)R₃, and R₃ is -(CH₂)_m aryl or -(CH₂)_m heteroaryl and m is 0 to 2 and the aryl or heteroaryl ring is optionally substituted with one or more substituents independently selected from halo, lower alkyl, hydroxy, lower alkoxy and phenyl.
- 15 19. Use as defined in claim 1 wherein link -B-C- is an optionally substituted link of the formula -CH₂-(CH₂)_z-, where z is 1-4.
20. Use as defined in claim 19 wherein z is 1 or 2.
- 20 21. Use as defined in claim 1 wherein -B-C- is a linker of the formula -CH₂CH₂-.
- 25 22. Use as defined in claim 1 wherein linker -B-C- is optionally substituted no more than three optional substituents, the substituents selected from halo, lower alkyl, hydroxy, lower alkoxy, phenyl and benzyl.
23. Use as defined in claim 1 wherein linker -B-C- is not substituted.
24. Use as defined in any one of claims 1 to 21 wherein X is oxygen or sulphur.
- 30 25. Use as defined in claim 1 wherein R₁ is an optionally substituted aryl or heterocyclyl group.
- 35 26. Use as defined in claim 1 wherein R₁ represents phenyl, thiienyl, pyrrolyl, pyridyl ring or a -C₁₋₆ alkylphenyl group, the rings being optional substituted with halo, hydroxy, nitro, -NR'R" (where R' and R" are independently selected from hydrogen, lower alkyl and -C(O)R, where R is C₁₋₆ alkyl, phenyl or heterocyclyl), C₁₋₁₂alkyl, phenyl and -O-R_a, where R_a is -C₁₋₁₂alkyl, -C₃₋₇cycloalkyl, -C₁₋₁₂alkylC₃₋₇cycloalkyl, phenyl or -C₁₋₁₂alkylphenyl; and the C₁₋₁₂alkyl, phenyl or R_a group may be optionally substituted with halo, -CN, -NR'R", -CO₂R or -CONR'R", where R, R' and R" are independently selected from hydrogen or lower alkyl.
- 40

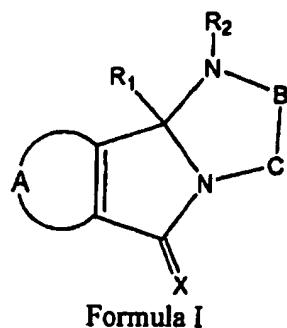
27. Use as defined in claim 1 wherein R₁ is phenyl optionally substituted with a substituent selected from halo, -C₁₋₆alkyl, -C₁₋₆alkylhalo, -C₁₋₆alkylCN, -OC₁₋₆alkyl, -OC₁₋₆alkylhalo, -OC₁₋₆alkylCO₂NH₂, -OC₁₋₆alkylCN, -OC₁₋₆alkylC₃₋₇cycloalkyl, -OC₁₋₆alkylC₆H₅, -OC₁₋₆alkylOCH₃, -OC₆H₅, -OC₆H₄halo, -CF₃, -OCF₃, -NR'R'' (where R' and R'' are independently selected from hydrogen, -C(O)C₁₋₆alkyl, -C(O)C₆H₅, -C(O)CH=CHCO₂H, -C(O)C₁₋₆alkylCO₂H, -C(O)C₁₋₆alkylCO₂CH₃, -C(O)C₁₋₆alkylC₆H₅, -C(O)C₁₋₆alkylC₆H₄CH₃, -C(O)C₁₋₆alkylC₆H₄OCH₃ and -C(O)C₁₋₆alkylC₆H₄halo), -CO₂H, -CO₂C₁₋₆alkyl, -NO₂, -OH, -C₆H₅, -C₆H₄C₁₋₆alkyl, -C₆H₄halo and -OC(O)C₁₋₆alkyl.
- 5 10 15 20 25 30 35 40
28. Use as defined in claim 1 wherein R₁ is phenyl substituted with halo, -OC₁₋₆alkyl, -OC₁₋₆alkylhalo, -OC₁₋₆alkylCO₂NH₂, -OC₁₋₆alkylCN, -OC₁₋₆alkylC₃₋₇cycloalkyl, -OC₁₋₆alkylC₆H₅ or -OC₁₋₆alkylOCH₃.
29. Use as defined in claim 1 wherein R₁ is 4-chlorophenyl.
30. A method for the treatment of infections involving viruses of the *Pneumovirinae* sub-family by the inhibition of the virus's fusion processes by the administration of a therapeutically effective amount of a compound of formula I as defined in any one of claims 1 to 29, the salt or pharmaceutically acceptable derivatives thereof to a patient in need to treatment.
31. A pharmaceutical formulation for the treatment of infections involving viruses of the *Pneumovirinae* sub-family comprising a compound of formula I as defined in any one of claims 1 to 29, the salt or pharmaceutically acceptable derivatives thereof.
32. Use of a compound of formula I as defined in any one of claims 1 to 29, the salt or pharmaceutically acceptable derivatives thereof in the manufacture of a medicament for the treatment of infections involving viruses of the *Pneumovirinae* sub-family.
33. A method for treating mammals infected with viruses of the *Pneumovirinae* sub-family, which comprises administering to the mammal a therapeutically effective amount of one or more of the compounds of formula I as defined in any one of claims 1 to 29, or pharmaceutically acceptable derivatives thereof.
34. A method for preventing the infection of mammals with viruses of the *Pneumovirinae* sub-family, which comprises administering to the mammal a therapeutically effective amount of one or more of the compounds of formula I as defined in any one of claims 1 to 29, or pharmaceutically acceptable derivatives thereof.

35. The use or method according to any one of claims 1 to 34 in the treatment of infections involving viruses of the Pneumovirus and Metapneumovirus genus.

5 36. The use or method according to any one of claims 1 to 34 in the treatment of respiratory syncytial virus (RSV).

37. The use or method according to any one of claims 1 to 34 in the treatment of human RSV or human metapneumovirus.

10 38. A compound of formula I



15 its salts, and pharmaceutically acceptable derivatives thereof, wherein

A together with the atoms to which it is attached, represents an optionally substituted phenyl, pyridyl, pyridazinyl, pyrimidinyl or pyrazinyl ring;

20 B-C is an optionally substituted link of the formula $-\text{CH}_2-(\text{CH}_2)_z-$, where z is 1-4;

25 R₁ is selected from C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, -(CH₂)_nC₃₋₇ cycloalkyl, -(CH₂)_nC₄₋₇ cycloalkenyl, -(CH₂)_n aryl, -(CH₂)_n arylC₁₋₁₂ alkyl, -(CH₂)_n arylC₂₋₁₂ alkenyl, -(CH₂)_n arylC₂₋₁₂ alkynyl, and -(CH₂)_n heterocyclyl; n is 0-6 and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted;

30 R₂ is selected from -CH₂R₃, -C(Y)R₃, -C(Y)OR₃, -C(Y)N(R₄)R₃ and -S(O)_wR₅, where R₃ is selected from hydrogen, C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, -(CH₂)_mC₃₋₇ cycloalkyl, -(CH₂)_mC₄₋₇ cycloalkenyl, -(CH₂)_m aryl, -(CH₂)_m arylC₁₋₁₂ alkyl, -(CH₂)_m arylC₂₋₁₂ alkenyl, -(CH₂)_m arylC₂₋₁₂ alkynyl and -(CH₂)_m heterocyclyl; and when R₂ is -CH₂R₃, or -C(Y)R₃, R₃ may also be selected from -S-R₅ and -O-R₅; m is 0-6; R₄ is hydrogen or C₁₋₆ alkyl; R₅ is C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₇ cycloalkyl, C₄₋₇ cycloalkenyl, benzyl, aryl or heterocyclyl; w is 0, 1 or 2, and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted,

X and Y are independently selected from O, S and NR₆, where R₆ is independently selected from hydrogen, lower alkyl, hydroxy and lower alkoxy;

with the provisos that when A is phenyl and R₁ is 4-chlorophenyl or unsubstituted phenyl

- 5 (i) R₃ is not unsubstituted cyclopropyl, halomethyl, unsubstituted phenyl or phenyl with only halo, -CH₃ and/or -OCH₃ substituents when R₂ is COR₃;
- (ii) R₃ is not unsubstituted phenyl or phenyl with only halo, -CH₃, -OCH₃ and/or -C(O)OCH₂CH₃ substituents when R₂ is C(O)NHR₃;
- 10 (iii) R₃ is not unsubstituted phenyl or phenyl with only halo, -CH₃, -OCH₃ and/or -C(O)OCH₂CH₃ substituents when R₂ is C(S)NHR₃;

and with the provisos

- (iv) when A is phenyl and R₂ is CH₂R₃, R₃ is not hydrogen, unsubstituted C₁₋₆ alkyl or C₁₋₆ alkyl only substituted with NH₂, mono or di C₁₋₆ alkyl amino groups;

- 15 (v) when A is phenyl and R₁ is 4-methoxyphenyl, R₂ is not CHO;
- (vi) when A is phenyl and R₁ is phenyl optionally substituted with only halo, C₁₋₆ alkyl and / or C₁₋₆ alkoxy and R₂ is COR₃, R₃ is not methylene substituted with NH₂, mono or di C₁₋₆ alkyl amino, N-piperidinyl or N-morpholinyl;
- (vii) when A is phenyl and R₁ is 3-CH₃,4-CH₃CH₂CH₂NHC(O)CH₂O-phenyl, R₂ is not -S(O)₂CH₂SO₂CH₃, -CHO, -COCH₂CH₃, -CH₂CH₂OH, -CH₂CH₂OCH₃, -CH₂CO₂C(CH₃)₃ or C₁₋₆ alkyl;
- 20 (viii) when A is pyridyl and R₁ is 3-CH₃,4-CH₃CH₂CH₂NHC(O)CH₂O-phenyl, R₂ is not CH₃.

25 39. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, with the proviso that when ring A is phenyl

- (i) R₃ is not hydrogen or optionally substituted C₁₋₆ alkyl when R₂ is -CH₂R₃ or -COR₃;
- (ii) R₃ is not (CH₂)_mheterocyclyl where m is 1 or 2 and the heterocyclyl ring is piperidinyl, morpholinyl, pyrrolidinyl, piperazinyl, thiomorpholinyl when R₂ is -COR₃ and R₁ is 4-chlorophenyl, 4-methoxyphenyl or unsubstituted phenyl;
- 30 (iii) R₂ is not benzyl;

and with the proviso

- (iv) R₂ is not -CH₃ when A is pyridyl.

35 40. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, when A is phenyl and R₂ is -CH₂R₃ or -C(O)R₃, and R₃ is selected from C₇₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, -(CH₂)_mC₃₋₇ cycloalkyl, -(CH₂)_mC₄₋₇ cycloalkenyl, -(CH₂)_m aryl, -(CH₂)_m arylC₁₋₁₂ alkyl, -(CH₂)_m arylC₂₋₁₂ alkenyl, -(CH₂)_m arylC₂₋₁₂ alkynyl, -(CH₂)_m heterocyclyl, -SR₅ and -OR₅.

41. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein ring A is optionally substituted with one or more substituents independently selected from halo, -NH₂, NO₂, C₁₋₆ alkyl, aryl and heterocycl, the aryl and heterocycl groups optionally substituted with halo, C₁₋₆alkyl or halo substituted C₁₋₆ alkyl and, when ring A contains one or more ring nitrogens, the optional substituents include N-oxides of one or more of the ring nitrogens.
- 5
42. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein ring A is optionally substituted with a substituent selected from halo, alkyl, C₆H₅- CH₃-C₆H₄-, CF₃-C₆H₄-, pyridyl, NO₂ and when ring A contains one or more ring nitrogens, the optional substituent also include an N-oxide form of a ring nitrogen.
- 10
- 15 43. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein ring A is not substituted.
44. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₂ is selected from -CH₂R₃, -C(Y)R₃, -C(Y)OR₃, -C(Y)N(R₄)R₃, -C(Y)CH₂N(R₄)R₃, -C(Y)CH₂SR₃ and -S(O)_wR₅, where R₃ is selected from hydrogen, -C₁₋₁₂alkyl, -C₂₋₁₂alkenyl, -C₂₋₁₂alkynyl, -(CH₂)_mC₃₋₇cycloalkyl, -(CH₂)_mC₄₋₇ cycloalkenyl, -(CH₂)_maryl, -(CH₂)_marylC₁₋₁₂ alkyl, -(CH₂)_marylC₂₋₁₂ alkenyl, -(CH₂)_marylC₂₋₁₂ alkynyl, -(CH₂)_mheterocycl, and when R₂ is -CH₂R₃, or -C(Y)R₃, R₃ may also be selected from -S-R₅ and -O-R₅; m is 0-6, R₄ is hydrogen or is C₁₋₆ alkyl, R₅ is selected from C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, C₃₋₇cycloalkyl, C₄₋₇ cycloalkenyl, benzyl, aryl and heterocycl; w is 0, 1 or 2, and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocycl groups are optionally substituted with one or more substituents selected from C₁₋₆ alkyl, C₁₋₆ alkoxy, C₂₋₆ alkenyl, C₂₋₆ alkynyl, halo, halo-C₁₋₆ alkyl (including CF₃), hydroxy, mercapto, nitro, cyano, NH₂, mono or di(C₁₋₆alkyl) amino, phenyl, benzyl and heterocycl, the substituents being optionally substituted.
- 20
- 25
- 30
- 35
45. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₂ is -CH₂-R₃, and R₃ is -(CH₂)_maryl or -(CH₂)_m heterocycl and m is 0 to 3 and the aryl or heterocycl ring is optionally substituted.
46. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₂ is -COR₃ and R₃ is aryl or heterocycl and is optionally substituted.

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47. The compound as defined in claim 45 or 46, the salt or pharmaceutically acceptable derivative thereof, wherein R₃ is optionally substituted phenyl, naphthyl, furyl, thienyl, pyrrolyl, H-pyrrolyl, pyrrolinyl, pyrrolidinyl, oxazolyl, oxadiazolyl, (including 1,2,3 and 1,2,4 oxadiazolyls) thiazolyl, isoxazolyl, furazanyl, isothiazolyl, pyrazolyl, pyrazolinyl, 5 pyrazolidinyl, imidazolyl, imidazolinyl, triazolyl (including 1,2,3 and 1,3,4 triazolyls), tetrazolyl, thiadiazolyl (including 1,2,3 and 1,3,4 thiadiazolyls), pyridyl, pyrimidinyl, pyridazinyl, pyranyl, pyrazinyl, piperidinyl, 1,4-dioxanyl, morpholinyl, 1,4-dithianyl, thiomorpholinyl, piperazinyl, 1,3,5-trithianyl, triazinyl, 1H thieno[2,3-c]pyrazolyl, thieno[2,3-b]furyl, indolyl, isoindolyl, benzofuranyl, benzothienyl, benzoxazolyl, 10 benzothiazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazolyl, indazolyl, isoquinolinyl, quinolinyl, quinoxalinyl, uridinyl, purinyl, cinnolinyl, phthalazinyl, quinazolinyl, quinoxaliny, benzotriazinyl, naphthyridinyl or pteridinyl.
48. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₃ is optionally substituted with one or more substituents selected from C₁₋₆ alkyl, C₁₋₆ alkoxy, C₂₋₆ alkenyl, C₂₋₆ alkynyl, halo, halo-C₁₋₆ alkyl (including CF₃), hydroxy, mercapto, nitro, cyano, NH₂, mono or di(C₁₋₆alkyl) amino, phenyl, benzyl and heterocycl, the phenyl, benzyl and heterocycl groups being 15 optionally substituted.
49. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₂ is -CON(H)R₃, and R₃ is -(CH₂)_m aryl or -(CH₂)_m heteroaryl and m is 0 to 2 and the aryl or heteroaryl ring is optionally substituted with one 20 or more substituents independently selected from halo, lower alkyl, hydroxy, lower alkoxy and phenyl.
50. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein z is 1 or 2.
51. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein -B-C- is a linker of the formula -CH₂CH₂-.
52. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein the linker -B-C- is optionally substituted no more than three 35 optional substituents, the substituents selected from halo, lower alkyl, hydroxy, lower alkoxy, phenyl and benzyl.
53. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein the linker -B-C- is not substituted.

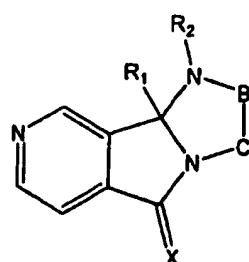
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54. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein X is oxygen or sulphur.
55. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein X is oxygen.
56. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ is an optionally substituted aryl or heterocyclyl group.
- 10 57. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ represents phenyl, thienyl, pyrrolyl, pyridyl ring or a -C₁₋₆ alkylphenyl group, the rings being optional substituted with halo, hydroxy, nitro, -NR'R" (where R' and R" are independently selected from hydrogen, lower alkyl and -C(O)R, where R is C₁₋₆ alkyl, phenyl or heterocyclyl), C₁₋₁₂alkyl, phenyl and -O-R_a, where R_a is -C₁₋₁₂alkyl, -C₃₋₇cycloalkyl, -C₁₋₁₂alkylC₃₋₇cycloalkyl, phenyl or -C₁₋₁₂alkylphenyl; and the C₁₋₁₂alkyl, phenyl or R_a group may be optionally substituted with halo, -CN, -NR'R", -CO₂R or -CONR'R", where R, R' and R" are independently selected from hydrogen or lower alkyl.
- 15 20 58. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ is phenyl optionally substituted with a substituent selected from halo, -C₁₋₆alkyl, -C₁₋₆alkylhalo, -C₁₋₆alkylCN, -OC₁₋₆alkyl, -OC₁₋₆alkylhalo, -OC₁₋₆alkylCO₂NH₂, -OC₁₋₆alkylCN, -OC₁₋₆alkylC₃₋₇cycloalkyl, -OC₁₋₆alkylC₆H₅, -OC₁₋₆alkylOCH₃, -OC₆H₅, -OC₆H₄halo, -CF₃, -OCF₃, -NR'R" (where R' and R" are independently selected from hydrogen, -C(O)C₁₋₆alkyl, -C(O)C₆H₅, -C(O)CH=CHCO₂H, -C(O)C₁₋₆alkylCO₂H, -C(O)C₁₋₆alkylCO₂CH₃, -C(O)C₁₋₆alkylC₆H₅, -C(O)C₁₋₆alkylC₆H₄CH₃, -C(O)C₁₋₆alkylC₆H₄OCH₃ and -C(O)C₁₋₆alkylC₆H₄halo), -CO₂H, -CO₂C₁₋₆alkyl, -NO₂, -OH, -C₆H₅, -C₆H₄C₁₋₆alkyl, -C₆H₄halo and -OC(O)C₁₋₆alkyl.
- 25 30 59. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ is halo-phenyl.
60. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivative thereof, wherein R₁ is 4-chlorophenyl.
- 35 61. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivatives thereof, wherein A is an optionally substituted phenyl ring.

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62. The compound as defined in claim 38, the salt or pharmaceutically acceptable derivatives thereof, wherein R₂ is C(O)-R₃ and R₃ is -(CH₂)_m-aryl or (CH₂)_m-heteroaryl, where m is 0 to 6, and the aryl or heteroaryl group is optionally substituted.

5 63. The compound as defined in claim 38 of the formula IV



Formula IV

10 wherein R₁, R₂, X and -B-C- are as defined in claim 38, and the N-oxide form and pyridium salt thereof.

15 64. The compound as defined in claim 63, and the N-oxide form and pyridium salt thereof, wherein R₂ is C(O)R₃ and R₃ is -(CH₂)_m-aryl or (CH₂)_m-heteroaryl, where m is 0 to 6, and the aryl or heteroaryl group is optionally substituted.

65. A compound disclosed in table 2 or 3.

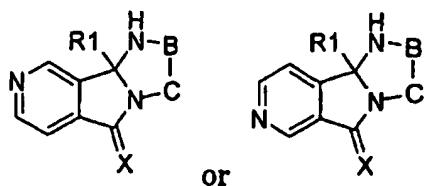
20 66. A pharmaceutical formulation for the treatment of infections involving viruses of *Pneumovirinae* sub-family comprising a compound of formula I as defined in any one of claims 38 to 65, the salt or pharmaceutically acceptable derivative thereof.

IAP20 Rec'd PCT/PTO 23 JUN 2006

AMENDED CLAIMS

[received by the International Bureau on 10 May 2005 (10.05.05);
new claims 67-82 added; remaining claims unchanged (3 pages)]

67. A compound of formula



and salts thereof, wherein

5

the pyridyl ring is optionally substituted;

B-C is an optionally substituted linker of the formula $-\text{CH}_2-(\text{CH}_2)_z-$, where z is 1-4;

- 10 R₁ is selected from C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, -(CH₂)_nC₃₋₇ cycloalkyl, -(CH₂)_nC₄₋₇ cycloalkenyl, -(CH₂)_n aryl, -(CH₂)_n arylC₁₋₁₂ alkyl, -(CH₂)_n arylC₂₋₁₂ alkenyl, -(CH₂)_n arylC₂₋₁₂ alkynyl, and -(CH₂)_n heterocyclyl; n is 0-6 and the alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl groups are optionally substituted;
- 15 X is selected from O, S and NR₆, where R₆ is independently selected from hydrogen, lower alkyl, hydroxy and lower alkoxy;

with the proviso that when -B-C- is $-\text{CH}_2\text{CH}(\text{CH}(\text{CH}_3)_2)-$, R₁ is not 3-CH₃,4-CH₃CH₂CH₂NHC(O)CH₂O-phenyl-.

20

68. The compound as defined in claims 67 and salts thereof, wherein the pyridyl ring is optionally substituted with one or more substituents independently selected from halo, -NH₂, -NO₂, -C₁₋₆alkyl, aryl and heterocyclyl, the aryl and heterocyclyl groups optionally substituted with halo, C₁₋₆alkyl or halo substituted C₁₋₆ alkyl, and the ring nitrogen of the pyridyl ring may optionally be an N-oxide.

69. The compound as defined in claim 67 and salts thereof, wherein the pyridyl ring is optionally substituted with a substituent selected from halo, alkyl, C₆H₅-, CH₃-C₆H₄-, CF₃-C₆H₄-, pyridyl and NO₂, and the ring nitrogen of the pyridyl ring may optionally be an N-oxide.

70. The compound as defined claim 67 and salts thereof, wherein the pyridyl ring is not substituted.

- 35 71. The compound as defined in claim 67 and salts thereof, wherein the linker -B-C- is as defined in any one of claims 21 to 23.

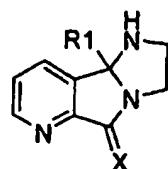
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72. The compound as defined in claim 67 and salts thereof, wherein X is oxygen or sulphur.

5 73. The compound as defined in claim 67 and salts thereof, wherein X is oxygen.

74. The compound as defined in claim 67 and salts thereof, wherein R₁ is as defined in any one of claims 25 to 29.

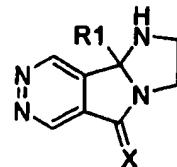
10 75. A compound of formula



and salts thereof, wherein the pyridyl ring is optionally substituted and R₁ and X are as defined in Claim 67, with the proviso that R₁ is not 4-chlorophenyl.

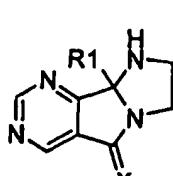
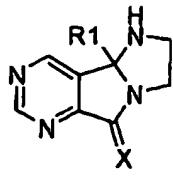
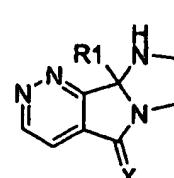
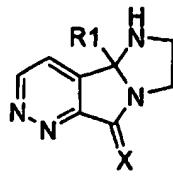
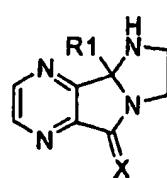
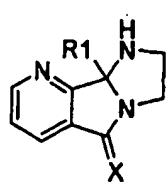
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76. A compound of the formula



20 and salts thereof, wherein the fused pyridazinyl ring is optionally substituted and R₁ and X are as defined in Claim 67, with the proviso that R₁ is not phenyl, 4-chlorophenyl or 4-methoxyphenyl.

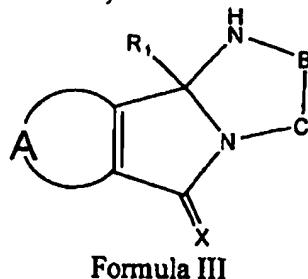
77. A compound of any one of the formula



25

and salts thereof, wherein the fused pyridyl, pyrazinyl, pyridazinyl or pyrimidinyl ring is optionally substituted and R₁ and X are as defined in Claim 67.

5 78. Use of a compound of formula III,



Formula III

and salts thereof, wherein R₁, ring A, -B-C- and X are as defined in claim 38, as an intermediate for the production of a compound of formula I as defined in claim 38.

10

79. A method of separating the enantiomers of a compound of formula III by forming diastereomeric salts of the compounds using an enantiomerically enriched chiral hydrogen phosphate.

15 80. A method of separating the enantiomers of a compound as defined in claim 67 by forming diastereomeric salts of the compound using an enantiomerically enriched chiral hydrogen phosphate.

81. The compound as defined in claim 38 in a substantially pure optically active form.
20

82. The compound as defined in claim 67, 75, 76 or 77 in a substantially pure optically active form.